Future Internet National Technology Platform

Establishment of Agriculture and Food Industry Chapter

Hungary

Introduction

The applications of information and network technologies in the agrobusiness field go back decades. In the field of R&D and in practice many results have already been achieved and applications, agro-specific applications and technologies have developed at both the national and international levels which require a very wide range of Internet services. In addition to the e-governmental services (agricultural information systems of the EU) and the different applications and services for enterprises (precision farming, application of field computers and sensors, geoinformatics, remote sensing, logistics, product monitoring etc.) have been covered by Bachelor and Master courses. Many PhD theses on agroinformatics have been taken in the field. Despite all this, from the point of view of the R&D&I of Internet of People (IoP) and Internet of Things (IoT) we are still lagging significantly behind the more developed countries and there is much more potential of capabilities. National and international experts see great possibilities for dissemination of IT applications in a range of agri-food sectors by development of readiness for Future Internet services.

Future Internet PPP (Public Private Partnership)

The agro-food sector has a growing demand for Future Internet technologies which provide new opportunities for development through the use of efficient, reliable and integrated services in order to ensure and increase food-safety. Several calls for proposals and European Union projects have been tendered (such in the framework of FP7 and H2020) to improve the application of Future Internet technologies in the agri-food sector. SmartAgriFood was a programme for the period of 2011-2013 period and agriXchang was another one for the period of 2010-2012. FIspace project started in 2013 and will be finished in 2015. Within the framework of agriXchange the aim was to develope the electronic agri-food data exchange services. Within the project surveys have been carried out in most countries of Europe and the results show that there is a huge lack of sharing data among agricultural ICT providers. SmartAgriFood and FI-SPACE are agro-food projects within the framework of Future Internet – Public-Private Partnership and their aim is to increase considerably the European competitiveness by Internet based intelligent services and applications. There were other similar programmes, ICT-AGRI ERA-NET, the FutureFarm (2008-2011) and the CAPIGI-network. SmartAgriMatics conference was held in July, 2014 where the participants presented their results obtained.

Agriculture and Food Industry Chapter of the Hungarian FI NTP

The aims of the Chapter are:

- to outline for the sector those advantages of FI technologies how and on which fields could help the development of agribusiness and innovation capacity
- to outline the strategies which could be useful for the enterprises of agribusiness and the business services sector (equipment and materials suppliers, distributors, financial and other service providers)

- to outline the strategies which are essential for governmental and professional organizations closely related to the agribusiness sector (ministries and their technical support organizations, professional chambers, associations, product boards etc.) as well as for higher education, R&D institutions and IT-enterprises.
- to help the synergy within the sector
- to promote the results widely
- to improve the initiatives and co-operations in national and international (H2020) projects.

Objectives

Preparation and publication of strategic studies and documents, on the basis of national applications, initiatives, international results and R&D activities, in cooperation with the platform members based on the following activities:

- Creating Working groups
  - Application-driven systems
    - Sectorial areas (cultivation, animal husbandry, horticulture, etc.)
    - e-Government
    - Enterprise (farm) management
    - Small family farms and food processing SMEs available systems and technologies
    - Activities, organizations comprehensive applications (product monitoring, food safety, logistics)
    - etc.
  - Technology-driven applications
    - Internet of things farming (smart farming: systems with sensors, remote management)
    - big (spatial) data: sensors, plus remote sensing, soil testing and peers: Decision Support Systems 3.0 (or social agrimedia)
    - mobile applications, portable devices in a few places there are more necessary than in agriculture. "Farming in the cloud" (Totally Transparent Product field (3T).
    - Agro-based robotics based on FI-n
    - Smart agri-logistics
    - etc.
  - Development of new innovative business models, applications and services based on FI.
- Organizing Workshops - Within the organization / FI conference workshop / session (s)
- Organizing Conferences
- Stimulate Students Research
- Publication of Results

Expected results

The Platform Chapter activities may contribute to strengthen the co-operation between researchers, developers, and users. The Chapter can stimulate the creation of new professional contacts, and tendering activity in the H2020.